IN THE UNITED STATES DISTRICT COURT
FOR THE WESTERN DISTRICT OF MISSOURI
CENTRAL DIVISION

MICHAEL POSTAWKO, et al., Plaintiffs, v. MISSOURI DEPARTMENT OF CORRECTIONS, et al., Defendants.	)	CASE NO. 2:16-CV-04219-NKL

ORDER GRANTING PRELIMINARY APPROVAL OF SETTLEMENT AGREEMENT, SETTING HEARING, AND DIRECTING CLASS NOTICE

This matter comes before the Court on the parties' Joint Motion for Preliminary Approval of Class Action Settlement (the "Joint Motion"). The parties request this Court's preliminary approval of a Private Settlement Agreement (the "Agreement") reached between Defendants and the Class certified by the Court of inmates in the custody of the Missouri Department of Corrections ("MDOC"). Specifically, in their Joint Motion, the parties request that the Court:

(a) preliminarily approve the Agreement;

(b) authorize and approve the form and manner of a Notice of Proposed Settlement, Right to Objection, and Fairness Hearing in Class Action Lawsuit (the "Notice") to be sent to Class members;

(c) set the deadline for written submissions by Class members, who wish to be heard in favor of or in objection to the Agreement;

(d) set a due date for briefs in support of approval of the Agreement; and

(e) set the date for a fairness hearing in accordance with Rule 23(e).

The Court has preliminarily reviewed and evaluated the proposed Agreement and finds that it falls within the range of fairness, reasonableness, and adequacy so as to warrant the Court's preliminary approval. Accordingly, the Joint Motion is **GRANTED** and the Court orders as follows:

1. Preliminary Approval of the Agreement and Distribution of Notice

Taking into account the applicable legal standards, the Court finds that the Agreement is worthy of the Class's consideration. It falls within the range of possible approval, as required by Rule 23. The Court therefore grants preliminary approval of the Agreement; approves the Notice, a copy of which is attached to this order, and orders that the Notice be directed to Class members as set forth below; and orders a hearing to be scheduled, as provided below, to ascertain whether the proposed Agreement meets the standards required for final approval under Rule 23(e).

2. Fairness Hearing

A hearing shall be held in Courtroom 4A at the Christopher S. Bond U.S. Courthouse, Jefferson City, Missouri 65101 at 10:00 A.M. on October 28, 2020, to consider whether the proposed Agreement is fair, reasonable, and adequate and should receive the Court's final approval pursuant to Rule 23(e).

a. Statements of support, objections, or comments by Class members regarding the proposed Agreement will be considered if submitted by U.S. Mail on or before October 12, 2020 to:

Clerk of Court, United States District Court
RE: Postawko v. MDOC, Case No. 2:16-CV-4219-NKL
Christopher S. Bond Court House
80 Lafayette Street
Jefferson City, MO 65101

b. Notwithstanding the direction that statements should be sent to the Court, counsel for the Class will provide counsel for Defendants any statements of support, objections,

or comments received from Class members, or any other person, entity, or interested party regarding the proposed Agreement within five days of receipt.

c. Counsel for the Class and for Defendants shall be prepared at the hearing to respond to any objections filed by Class members, or their legal representatives, and to provide other information, as appropriate, bearing on why the Agreement should be approved.

d. Briefs in support of final approval of the Agreement shall be due October 26, 2020.

3. Notice to Class Members

The Notice, in the form attached hereto as **Exhibit A**, is approved. Nothing in this order requires Defendants to respond or provide legal advice to any Class member, or any other person or entity in connection with the Agreement. Defendants may refer any outside inquiries or questions about the Agreement to Class Counsel.

On or before September 8, 2020, Defendants shall, at their sole expense, take the following steps to notify Class members of the proposed Agreement, as follows:

a. Defendants shall provide a hard copy of the Notice to each member of the Class, based on the August 2020 HCV Master List, actually in MDOC custody when the Notice is distributed, *i.e.*, each person in the custody of MDOC who has tested positive for HCV but has not received treatments with DAA drugs;

b. Defendants shall post a copy of the Notice and proposed Agreement in one or more locations within each MDOC facility where inmates frequently congregate, *e.g.*, housing and medical units;

c. Defendants shall make a copy of the Notice and proposed Agreement available in the library of each MDOC facility which possess a library;

d. Defendants shall announce the availability and locations of Notices on the MDOC internal television system; and

e. For inmates confined to specialty housing units within MDOC (such as restrictive housing, crisis cells, or medical isolation), Defendants shall offer to provide or allow an inmate to review a copy of the Notice and proposed Agreement.

Defendants will provide Class Counsel with a copy of the August 2020 HCV Master List marked as "Attorneys' Eyes Only" pursuant to the Joint Stipulated Protective Order (Doc. 168) upon commencing distribution of the Notice.

Defendants will file with the Court, on or before September 10, 2020, an affidavit certifying compliance with the notice requirements of this order.

IT IS SO ORDERED.

s/ Nanette K. Laughrey
NANETTE K. LAUGHREY
United States District Judge

Dated: August 25, 2020
Jefferson City, Missouri

EXHIBIT A

IN THE UNITED STATES DISTRICT COURT
WESTERN DISTRICT OF MISSOURI
CENTRAL DIVISION

MICHAEL POSTAWKO, *et al.*,	)	
	)	
Plaintiffs,	)	
	)	
v.	)	No. 2:16-CV-4219-NKL-P
	)	
MISSOURI DEPARTMENT OF CORRECTIONS, *et al.*,	)	
	)	
	)	
Defendants.	)	

NOTICE OF PROPOSED SETTLEMENT, RIGHT TO OBJECT, AND FAIRNESS HEARING IN CLASS ACTION LAWSUIT

To: *All those individuals in the custody of MDOC, now or in the future, who have been, or will be, diagnosed with chronic [hepatitis C virus (HCV)], as that term is defined medically, but who are not provided treatment with direct acting antiviral drugs (DAAs).*

You are a member of the Class affected by this lawsuit. This is a Court-ordered Notice. The purpose of this Notice is to inform you of a proposed settlement in the lawsuit, including your right to provide any favorable comments or objections to the proposed settlement, and the upcoming fairness hearing where the Court will consider the proposed settlement.

Please read this Notice carefully, as your rights may be affected by this proposed settlement agreement.

1. WHAT IS THIS LAWSUIT ABOUT?

This is a class action lawsuit pending in federal district court. The case is known as *Postawko v. MDOC, et al.*, Case No. 2:16-CV-4219-NKL. The people who sued are called the Plaintiffs, and the people they sued are called the Defendants. In this case, the Defendants are the Missouri Department of Corrections (MDOC) and its private medical provider, Corizon LLC (Corizon).

The plaintiffs filed this lawsuit on July 14, 2016. Plaintiffs seek relief from the Defendants' policies and practices regarding the treatment of Missouri inmates who have chronic hepatitis C.

The Centers for Disease Control and Prevention provides the following explanation of hepatitis C:

> *Hepatitis C is a liver infection caused by the hepatitis C virus (HCV). Hepatitis C is a blood-borne virus. Today, most people become infected with the hepatitis C virus by sharing needles or other equipment to inject drugs. For some people, hepatitis C is a short-term illness but for 70%–85% of people who become infected with the hepatitis C virus, it becomes a long-term, chronic infection. Chronic hepatitis C is a serious disease than can result in long-term health problems, even death. Many people might not be aware of their infection because they are not clinically ill.*[1]

The lawsuit seeks injunctive relief. It does not seek money damages on behalf of the entire Class. Instead, it seeks injunctive relief. "Injunctive relief" means a court order that prohibits the Defendants from doing something and/or directs the Defendants to do something.

2. WHY AM I RECEIVING THIS NOTICE?

The Court has certified this lawsuit as a class action and decided that everyone who fits the definition of the Class is a Class Member. The Class is defined as:

> *All those individuals in the custody of MDOC, now or in the future, who have been, or will be, diagnosed with chronic HCV, as that term is defined medically, but who are not provided treatment with direct acting antiviral drugs (DAAs).*

If you fit this definition, you are automatically a Class Member and do not need to take any further action to be a part of this lawsuit. Since the lawsuit seeks only injunctive relief, you cannot opt out of the Class.

You are receiving this Notice because there is a proposed settlement on behalf of the entire Class, and you now have the chance to tell the Court whether you agree or disagree, if you wish.

3. WHAT DOES THE PROPOSED SETTLEMENT PROVIDE?

The proposed settlement is summarized as follows:

[1] Centers for Disease Control and Prevention, *Hepatitis C*, https://www.cdc.gov/hepatitis/hcv/index.htm

(1) Defendants agree to conduct opt-out antibody testing for all inmates at intake. beginning July 1, 2020. This means that all inmates will automatically be tested for hepatitis C, unless they affirmatively choose not to be tested.

(2) Defendants agree to immediately conduct RNA testing for those inmates with positive antibody tests. An antibody test determines whether you have, at any time, been infected with the hepatitis C virus; the RNA test confirms whether the infection is active, or has cleared. If the RNA test is positive, the inmate will be enrolled in the hepatitis C chronic care clinic.

(3) Defendants agree to conduct RNA testing with the next scheduled blood draw for every inmate with a positive antibody test who has not yet received an RNA test and will provide the inmate with a copy of their test results either on paper or via tablet.

(4) Defendants will provide educational materials to inmates regarding the virus and Defendants' policies and procedures for treating hepatitis C, and will display posters that encourage HCV testing that will be posted on bulletin boards within the facilities and on the offender television network.

(5) Between now and June 30, 2021, Direct Acting Antiviral ("DAA") treatment will be provided to Class Members as follows:

(a) Corizon, the current MDOC medical services vendor, will complete DAA treatment of all Priority 1 inmates identified as of January 1, 2021 (as defined by the Federal Bureau of Prisons ("FBOP") Guidance[2]; the current version of the Guidance defining Priority groups is attached here as **Exhibit A**).

(b) Corizon will treat at least 15 inmates in a given quarter through the end of its contract on June 30, 2021. If all Priority 1 inmates are treated before June 30, 2021, Corizon will proceed to treat Priority 2 inmates, followed by Priority 3 inmates.

(6) A new medical services contract will begin on July 1, 2021. The State of Missouri will require that the next MDOC medical services vendor agree to the following for the duration of the contract (July 1, 2021 through June 30, 2028):

(a) The vendor must conduct opt-out antibody testing for all inmates at intake and immediate RNA testing for all inmates with positive

[2] The current FBOP Guidance is also available online at https://www.bop.gov/resources/pdfs/hcv_infection_20180906.pdf . Any updates to the Guidance should be posted to FBOP's "Health Management Resources" page, available at https://www.bop.gov/resources/health_care_mngmt.jsp.

antibody tests. If the RNA test is positive, the inmate will be enrolled in the HCV chronic care clinic.

(b) The vendor must spend at least $7 million per each fiscal year on DAA medications, and must treat all Priority 1 inmates (as defined by the FBOP Guidance) regardless of whether those costs are in excess of $7 million.

(c) Inmates will be treated based upon FBOP Guidance, including Guidance regarding who receives treatment first and the recommendation that an inmate have at least 181 days remaining on his/her sentence to receive treatment. Those inmates that are HCV positive but are unable to be treated due to time remaining on their sentences will be provided referral information as part of reentry. If the FBOP Guidance is updated, the vendor will be required to follow the newest FBOP Guidance for treatment.

(d) The vendor will conduct a liver ultrasound every 6 months for all Priority 1 inmates as part of their Cirrhosis Chronic Care Clinic.

(7) Defendants will provide Plaintiffs' counsel with quarterly reports regarding compliance with the agreement.

(8) On-site medical staff will receive education/training regarding hepatitis C.

(9) Defendants will pay attorneys' fees and expenses to Class Counsel of $375,000 as well as reimburse Plaintiffs' counsel for certain mediation expenses.

If you would like to obtain a full copy of the proposed settlement agreement, please contact Class Counsel. Their contact information is in Section 5, below. You can also see the entire proposed settlement agreement at Class Counsel's website: <insert link>. The settlement agreement will be posted no later than <date>. In addition, a copy of the settlement agreement will be available in the library of each MDOC facility. **Please do not call District Judge Nanette K. Laughrey or the Clerk of the Court regarding the settlement agreement or this case.**

4. WHAT HAPPENS NEXT?

Before this proposed settlement agreement can be approved, the Court must conduct a fairness hearing. **The Court has scheduled a fairness hearing for DATE in LOCATION**. Following that hearing, the Court will decide whether or not it will approve the proposed settlement agreement. The settlement may be approved only if it is fair, reasonable, and adequate to the Class Members.

Any Class Member has the right to let the Court know if they support or object to the proposed settlement. Class Members may object to the settlement by sending a letter marked "Postawko Settlement" before DATE (the "Objection Deadline") to the Court addressed as follows:

Clerk of Court, United States District Court
RE: Postawko v. MDOC, Case No. 2:16-CV-4219-NKL
Christopher S. Bond Court House
80 Lafayette Street
Jefferson City, MO 65101

All letters of support or objection will be filed in the public docket and a copy will be provided automatically to each of the attorneys of record in this case. Letters of support or objection will not be confidential.

Any Class Member who wishes to be heard at the fairness hearing must file such a request in writing by the Objection Deadline. Any party who wishes to offer testimony from non-Class Members by affidavit or declaration in lieu of testimony at the fairness hearing must file the affidavit or declaration by the Objection Deadline. The parties must identify any other witness at the Objection Deadline. Letters of objection will be considered regardless of whether an objecting Class Member wishes to be heard at the fairness hearing.

The settlement was reached and approved by Defendants and by Class Counsel. There are two Class representatives that the Court appointed to represent the Class. They are Michael Postawko and Christopher Baker. Mr. Postawko and Mr. Baker both support the proposed settlement.

5. WHO ARE THE CLASS MEMBERS' LAWYERS IN THIS CASE?

The Court ordered that the following attorneys represent the Class Members. These lawyers are called "Class Counsel":

Anthony E. Rothert
Jessie Steffan
American Civil Liberties Union
of Missouri Foundation
906 Olive Street, Suite 1130
St. Louis, Missouri 63101

Gillian R. Wilcox
American Civil Liberties Union
of Missouri Foundation
406 West 34th Street, Suite 420

Kansas City, Missouri 64111

Amy E. Breihan
Roderick & Solange MacArthur Justice Center
3115 South Grand Blvd., Suite 300
St. Louis, MO 63118

The Class is also represented by the following attorneys, who entered their appearances in the case after Class Counsel were appointed:

Betsy Henthorne
Amelia I. P. Frenkel
Anastasia M. Pastan
Tamarra D. Matthews Johnson
Kieran G. Gostin
Wilkinson Walsh LLP
2001 M Street NW, 10th Floor
Washington, DC 20036

Meghan C. Cleary
Wilkinson Walsh LLP
130 West 42nd Street, Suite 1402
New York, NY 10036

Omri Praiss
Kayla DeLoach
American Civil Liberties Union
of Missouri Foundation
906 Olive Street, Suite 1130
St. Louis, Missouri 63101

Class Members will not be charged for these lawyers' fees or expenses.

6. HOW DO I GET MORE INFORMATION ABOUT THE CASE?

If you have any questions, you may contact Class Counsel in writing at the address below:

Roderick & Solange MacArthur Justice Center
RE: *Postawko*
3115 South Grand Blvd., Suite 300
St. Louis, MO 63118

/s/ Nanette K. Laughrey
NANETTE K. LAUGHREY
United States District Judge

Dated: August 25, 2020
Jefferson City, Missouri

EXHIBIT A

to

NOTICE OF PROPOSED SETTLEMENT, RIGHT TO OBJECT,
AND FAIRNESS HEARING IN CLASS ACTION LAWSUIT

EVALUATION AND MANAGEMENT OF CHRONIC HEPATITIS C VIRUS (HCV) INFECTION

Federal Bureau of Prisons

Clinical Guidance

AUGUST 2018

Federal Bureau of Prisons (BOP) Clinical Guidance is made available to the public for informational purposes only. The BOP does not warrant this guidance for any other purpose, and assumes no responsibility for any injury or damage resulting from the reliance thereof. Proper medical practice necessitates that all cases are evaluated on an individual basis and that treatment decisions are patient-specific. Consult the BOP Health Management Resources Web page to determine the date of the most recent update to this document: http://www.bop.gov/resources/health_care_mngmt.jsp.

WHAT'S NEW IN BOP GUIDANCE REGARDING HCV INFECTION?

The* CURRENT VERSION *of this guidance contains the following major revisions:

- ***HCV SCREENING*:** The BOP recommends opt-out voluntary testing of all inmates for HCV infection, regardless of sentencing status, including new intakes and those already in population who have not been previously tested.

- ***HCV TREATMENT*:** All sentenced inmates are eligible for consideration of treatment for chronic HCV infection. BOP Priority Criteria have been retained as a guide for deciding whom to treat first.

- ***PRIORITY LEVEL 2 CRITERIA*:** Birth cohort 1945–1965 was added to Priority Level 2. Fifty percent of HCV-related deaths occur in this population.

- ***HEPATITIS C TREATMENT ALGORITHM*:** The Non-formulary Request Worksheet has been updated to include the five parameters (albumin, bilirubin, INR, ascites, hepatic encephalopathy) of the Child-Turcotte-Pugh (CTP) score.

The major changes included in the January 2018 update were as follows:

- Two new combination direct-acting antiviral (DAA) medications have been FDA-approved for the treatment of chronic hepatitis C virus (HCV) infection and are now included in *Section 6, Recommended Treatment Regimens*:
  - Glecaprevir/pibrentasvir (Mavyret™) and
  - Sofosbuvir/velpatasvir/voxilaprevir (Vosevi®).
- Recommended HCV treatment regimens have been updated to reflect the current guidance from the American Association for the Study of Liver Diseases (AASLD).
- The APRI cutoff for treatment Priority Level 2 has been lowered to ≥ 0.7.
- The appendices containing drug information tables are no longer included in this guidance. In light of the rapidly changing HCV treatment landscape, providers are now refered to manufacturer's prescribing information, Facts and Comparisons (available in BEMR), and other validated resources for the most up-to-date information on individual HCV drugs.

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1. PURPOSE AND OVERVIEW

The Federal Bureau of Prisons (BOP) *Clinical Guidance on Evaluation and Management of Chronic Hepatitis C Virus (HCV) Infection* provides the most current BOP recommendations for the treatment of chronic HCV infection in the federal inmate population. As stated by the current American Association for the Study of Liver Diseases (AASLD)/Infectious Diseases Society of America (IDSA) HCV Guidance, **the goal of treatment of HCV-infected persons is to:**

> *… reduce all-cause mortality and liver-related health adverse consequences, including end-stage liver disease and hepatocellular carcinoma, by the achievement of virologic cure as evidenced by a sustained virologic response.*

In light of the rapidly changing HCV treatment landscape, review of the most recent recommendations from AASLD/IDSA (see link below) is recommended. BOP Central Office Clinical staff will continue to monitor this guidance and provide updates as necessary.

- ➔ *Be sure to consult the BOP Health Management Resources website to determine the date of the most recent update to this document: http://www.bop.gov/resources/health_care_mngmt.jsp.*
- ➔ *The AASLD/IDSA guidance is available at https://www.hcvguidelines.org. See the References section in this document for a complete citation.*

In general, the BOP promotes a modified test-and-treat strategy for HCV infection. The BOP-recommended approach to evaluation and management of HCV includes five basic steps.

STEP 1: Test for HCV infection with anti-HCV (HCV Ab) test.

➔ *See Section 2, Screening for HCV Infection.*

- All inmates
- Diagnostic evaluation of other conditions
- Upon inmate request

STEP 2: Perform a baseline evaluation of inmates who are anti-HCV positive.

➔ *See Section 3, Initial Evaluation of Anti-HCV Positive Inmates.*

- Problem-focused history and physical exam
- Lab tests – CBC, PT/INR, liver panel, serum creatinine and eGFR, hepatitis B serology (HBsAg, anti-HBs, anti-HBc), HIV serology, quantitative HCV RNA viral load with reflex testing for HCV genotype

STEP 3: Assess for hepatic cirrhosis/compensation *and* BOP priority criteria for treatment, if HCV RNA is detectable.

- Assess for hepatic cirrhosis/compensation: Calculate APRI score if no obvious cirrhosis; Calculate Child-Turcotte-Pugh (CTP) score if cirrhosis is known or suspected (➔ *Section 4*).
- Assess for BOP priority criteria for treatment of HCV (➔ *Section 5*).

STEP 4: Perform a pretreatment assessment, if priority criteria for treatment are met.

- Determine the most appropriate direct-acting antiviral (DAA) regimen(s)
  - ▸ DAA regimen selection is based on HCV genotype, cirrhosis, compensated or uncompensated liver disease, prior treatment history, presence of resistance associated substitutions, and drug interactions (➔ *Appendix 1 and Appendix 2*).
  - ▸ Refer to AASLD HCV guidance, DHHS antiretroviral guidelines, and manufacturers' prescribing information for specific drug interactions (➔ *References*).
- Obtain pretreatment labs within 90 days of starting treatment (➔ *Appendix 3*).
- Submit Nonformulary Request (NFR) for Hepatitis C Treatment Algorithm; if approved, submit NFR(s) for specific DAA medication(s) (➔ *Appendix 6)*.
- Provide preventive health care for patients with cirrhosis.

STEP 5: Monitor patient during and after treatment.

- Start treatment with approved DAA regimen.
- Follow monitoring schedule described in *Appendix 3*.

2. SCREENING FOR HCV INFECTION

INMATE HISTORY AND PATIENT EDUCATION

A health history should be obtained from all newly incarcerated BOP inmates. In addition, these inmates should be provided with educational information regarding prevention and transmission, risk factors, testing, and medical management of HCV infection, in accordance with BOP policy. Health education efforts should make use of the BOP peer-oriented video on infectious diseases, *Staying Alive*, located in Section 5: A–Z Topics on the HSD Infection Control website.

SCREENING CRITERIA

Testing for HCV infection is recommended for (a) all inmates, (b) all inmates with certain clinical conditions, and (c) all inmates who request testing.

a. RISK FACTORS FOR SENTENCED INMATES

An OPT OUT strategy of voluntary testing for HCV infection is recommended for all inmates, regardless of sentencing status, including new intakes and those already in population who have not been previously tested. An "opt out" approach involves an informed refusal of testing, rather than informed consent (or "opt in") for testing. After informing a patient of the indications and plan for testing, the particular test is ordered and performed—unless the patient declines it. Testing is considered voluntary in that it is good clinical practice, but is not required by policy or law.

The AASLD, CDC, and USPSTF recommend risk factor-based and birth cohort screening for HCV infection. The incarcerated population is reported to have higher prevalence rates of HCV than the general population and is identified by the AASLD and USPSTF as a risk factor for which screening is recommended.

Other well-described risk factors, which should be considered when recommending HCV testing to inmates, include:

- Ever injected illegal drugs or shared equipment (including intranasal use of illicit drugs)
- Received tattoos or body piercings while in jail or prison, or from any unregulated source
- HIV or chronic hepatitis B virus (HBV) infection
- Received a blood transfusion or an organ transplant before 1992, received clotting factor transfusion prior to 1987, or received blood from a donor who later tested positive for HCV infection
- History of percutaneous exposure to blood
- Ever received hemodialysis
- Born to a mother who had HCV infection at the time of delivery
- Born between 1945 and 1965

b. CLINICAL CONDITIONS FOR ANY INMATE

HCV testing is recommended for all inmates with the following clinical conditions:

- A reported history of HCV infection without prior medical records to confirm the diagnosis
- Cirrhosis
- Elevated ALT levels of unknown etiology
- Evidence of extrahepatic manifestations of HCV – mixed cryoglobulinemia, membranoproliferative glomerulonephritis, porphyria cutanea tarda, vasculitis
- Potential exposure to HCV, e.g., chronic hemodialysis (screen alanine aminotransferase [ALT] monthly and anti-HCV semiannually), injection drug use or high-risk sexual behavior, exposure to blood or potentially infectious material (see BOP Clinical Guidance on *Medical Management of Exposures*)

SCREENING METHOD

The preferred screening test for HCV infection is an immunoassay that measures the presence of antibodies to HCV antigens, referred to as *HCV Ab* or *anti-HCV*. The presence of these antibodies only indicates a history of exposure to the HCV virus, but does not distinguish between active and resolved infection.

Initial testing with an HCV RNA test is recommended for cases with a known prior positive HCV Ab if they are at risk for reinfection or suspected of reinfection, and if they previously cleared the HCV spontaneously or achieved a sustained virologic response (**SVR**) with treatment.

REFUSAL OF TESTING

Inmates who decline testing at the baseline visit, should be counseled about and offered HCV testing during periodic preventive health visits.

➔ *A treatment refusal form is recommended for every testing and treatment refusal.*

3. INITIAL EVALUATION OF ANTI-HCV POSITIVE INMATES

Initial evaluation of anti-HCV positive inmates includes **(a)** a baseline history and physical examination, and **(b)** baseline lab tests. The inmate should also be **(c)** assessed regarding the need for preventive health interventions such as vaccines and screenings for other conditions, as well as **(d)** counseled with information on HCV infection.

Determining whether the patient meets BOP priority criteria for treatment is an important part of the initial evaluation of anti-HCV positive inmates:

➔ *If cirrhosis is present, see Section 4, Assess for Hepatic Cirrhosis and Decompensation, to determine whether the liver disease is compensated or decompensated.*

➔ *Section 5, BOP Priority Criteria for Treatment, lists the clinical scenarios that will be used in the BOP to prioritize inmates for treatment.*

BASELINE EVALUATION

A baseline clinician evaluation should be conducted for all inmates who are anti-HCV positive. At minimum, this evaluation should include the following elements:

a. PROBLEM-FOCUSED HISTORY AND PHYSICAL EXAMINATION:

- Evaluate for signs and symptoms of liver disease, quantify prior alcohol consumption, and determine risk behaviors for acquiring HCV infection (see the section on risk factors under *Screening Criteria* above). Attempt to estimate the earliest possible date of infection, including when risk factors for exposures started and stopped, e.g., the time period in which the inmate engaged in injection drug use.
- Evaluate for other possible causes of liver disease, especially alcoholism, nonalcoholic steatohepatitis (NASH), iron overload, and autoimmune hepatitis.
- Inquire about prior treatment for HCV infection, specific medications used, dosages and duration of treatment, and outcomes, if known.

b. LABORATORY TESTS:

Recommended baseline laboratory tests are listed in *Appendix 3* and include the following:

- Complete blood count (CBC); prothrombin time (PT) with International Normalization Ratio (INR); liver panel (albumin, total and direct bilirubin, serum alanine aminotransferase (ALT) and aspartate aminotransferase (AST), and alkaline phosphatase); serum creatinine; and calculated glomerular filtration rate (GFR).
  - ➔ *Unexplained abnormalities should prompt additional diagnostic evaluations, as clinically indicated, to determine the underlying cause, e.g., low hemoglobin/platelet count or GFR.*
- Hepatitis B serology (HBsAg, anti-HBs, and anti-HBc) and HIV serology.
  - ➔ *Refer to the relevant BOP Clinical Guidance for management of a positive HBsAg or HIV test.*
- Quantitative HCV RNA viral load testing, sensitive to $\leq$ 25 IU/ml, with reflex testing for HCV genotype, to determine if the inmate has active HCV infection and identify the HCV genotype.
  - ➔ *Undetectable levels of HCV RNA indicate resolved infection or a false positive HCV Ab test. Such cases do not require ongoing follow-up or monitoring of this condition in a chronic care clinic.*
- Unless otherwise clinically indicated, testing for other causes of liver disease—e.g., antinuclear antibody (ANA), ferritin, iron saturation, ceruloplasmin—are not routinely ordered in the evaluation of a positive HCV Ab test.
- A urine drug screen is recommended only if ongoing substance use is suspected or if it is otherwise clinically indicated.

c. PREVENTIVE HEALTH MEASURES:

All inmates who are anti-HCV positive should be evaluated to assess the need for the preventive health interventions. Patients with liver disease should receive standard immunizations that are applicable to an otherwise healthy population, including the following:

- **Hepatitis B vaccine:** Indicated for susceptible inmates with chronic HCV infection. For foreign-born inmates, consider prescreening for hepatitis B immunity prior to vaccination.
  - ➔ *Inmates with evidence of liver disease should be priority candidates for hepatitis B vaccination.*
- **Hepatitis A vaccine:** Indicated for susceptible inmates with chronic HCV. For foreign-born inmates, consider prescreening for hepatitis A immunity prior to vaccination.
- **Influenza vaccine:** Offer to all HCV-infected inmat es annually.
  - ➔ *Inmates with cirrhosis are high priority for influenza vaccine.*
- **Pneumococcal vaccine:** Recommended by the CDC's Advisory Committee on Immunization Practices (ACIP) for use in adults with chronic liver disease, including cirrhosis, regardless of age. Evidence for its use in chronic HCV infection without cirrhosis is limited. (Refer to BOP Clinical Guidance on *Immunization* for specific recommendations.)

d. PATIENT EDUCATION:

Inmates diagnosed with chronic HCV infection should be counseled by a health care provider regarding the natural history of the infection, potential treatment options, and specific measures to prevent transmitting HCV infection to others (both during incarceration and upon release).

4. ASSESS FOR HEPATIC CIRRHOSIS AND DECOMPENSATION

Cirrhosis is a condition of chronic liver disease marked by inflammation, degeneration of hepatocytes, and replacement with fibrotic scar tissue. The natural history of HCV is such that 50–80% of HCV infections become chronic. Progression of chronic HCV infection to fibrosis and cirrhosis may take years in some patients and decades in others—or, in some cases, may not occur at all. Most complications from HCV infection occur in people with cirrhosis.

- Patients with advanced hepatic fibrosis (primarily stage 3) have a 10% per year rate of progressing to cirrhosis (stage 4).
- Those with cirrhosis have a 4% per year rate of developing decompensated cirrhosis, and a 3% per year rate of developing hepatocellular carcinoma.

➔ *The Child-Turcotte-Pugh (CTP) score is a useful tool in determining the severity of cirrhosis and in distinguishing between compensated and decompensated liver disease. See the discussion under Assessing Hepatic Compensation.*

ASSESSING FOR HEPATIC FIBROSIS AND CIRRHOSIS

Assessing for advanced fibrosis and cirrhosis is recommended for all inmates with HCV infection in order to select the most appropriate treatment regimen, prioritize inmates for treatment of HCV, and determine the need for additional health care interventions. Cirrhosis may be diagnosed in several ways:

- **Symptoms and signs that support the diagnosis of cirrhosis may include:** Low albumin or platelets, elevated bilirubin or INR, ascites, esophageal varices, and hepatic encephalopathy. However, isolated lab abnormalities may require additional diagnostic evaluation to determine the etiology.

- **The AST-Platelet Ration Index (APRI) is the BOP-preferred method for non-invasive assessment of hepatic fibrosis and cirrhosis:**
  - The APRI score, a calculation based on results from two blood tests—the AST (aspartate aminotransferase) and the platelet count—is a less invasive and less expensive means of assessing fibrosis than a liver biopsy. **If a person is known to have cirrhosis, the APRI is irrelevant and unnecessary.**
    - *The formula for calculating the APRI score is:* **[(AST/AST ULN) x 100] / platelet count (10^9/L).**
    - *A calculator is available at: http://www.hepatitisc.uw.edu/page/clinical-calculators/apri*
  - **An APRI score ≥ 2.0 may be used to predict the presence of cirrhosis.** At this cutoff, the APRI score has a sensitivity of 48%, but a specificity of 94%, for predicting cirrhosis. Inmates with an APRI score ≥ 2.0 should have an abdominal ultrasound performed to identify other findings consistent with cirrhosis (see *abdominal imaging studies* bullet below in this list). Lower APRI scores have different sensitivities and specificities for cirrhosis. For example, an APRI score ≥ 1 has a sensitivity of 77% and a specificity of 75% for predicting cirrhosis.
  - **The APRI may also be used to predict the presence of significant fibrosis (stages 2 to 4, out of 4).** Using a cutoff of ≥ 0.7, the sensitivity is 77% and specificity is 72% for significant fibrosis.
  - **The APRI score may be invalidated in cases of splenectomy. An alternative non-invasive test, e.g., Fibrosure, may be appropriate.**

- **Liver biopsy is no longer required** unless otherwise clinically indicated or if there is uncertainty about the stage of fibrosis, based on results from non-invasive testing or other clinical indicators. However, the presence of cirrhosis on a prior liver biopsy may be used to meet the BOP criteria for HCV treatment.

- **Although a combination of direct biomarkers and transient elastography is emerging as an accurate non-invasive assessment of fibrosis**, the data is insufficient at this time to establish it as the new standard over validated indirect biomarkers such as the APRI score.

- **Abdominal imaging studies** such as ultrasound or CT scan may identify findings consistent with or suggestive of the following: ***cirrhosis*** (nodular contour of the liver), ***portal hypertension*** (ascites, splenomegaly, varices), or ***hepatocellular carcinoma*** (HCC). Abdominal ultrasound is routinely performed in cases of known or suspected cirrhosis, and as clinically indicated on a case-by-case basis.

ASSESSING HEPATIC COMPENSATION

Assessing hepatic compensation is important for determining the most appropriate HCV treatment regimen to be used. The recommended HCV treatment regimen may differ depending on whether the cirrhosis is compensated or decompensated.

The **CTP SCORE** is a useful tool to help determine the severity of cirrhosis and is used by the AASLD to distinguish between compensated and decompensated liver disease in patients with known or suspected cirrhosis.

→ *CTP calculators are readily available on the Internet and are not reproduced in this document. See: http://www.hepatitisc.uw.edu/page/clinical-calculators/ctp*

The CTP score includes five parameters (albumin, bilirubin, INR, ascites, and hepatic encephalopathy), each of which is given a score of 1, 2, or 3. The sum of the five scores is the CTP score, which is classified as shown in **TABLE 1** below:

TABLE 1: USING CTP SCORES TO ASSESS HEPATIC COMPENSATION

CTP SCORE	CTP CLASS	HEPATIC COMPENSATION
5–6	Class A	Compensated cirrhosis
7–9	Class B	Decompensated cirrhosis
≥ 10	Class C	

NOTES:
- → ***Warfarin** anticoagulation will invalidate CTP calculations if the INR is 1.7 or higher.*
- → *It is recommended that cases of **decompensated cirrhosis** be managed in consultation with a clinician experienced in the treatment of this condition.*
- → *Inmates with **CTP Class C decompensated cirrhosis** may have a reduced life expectancy and should be considered for Reduction In Sentence/Compassionate Release in accordance with current policy (Compassionate Release/Reduction in Sentence) and procedures.*

ADDITIONAL INTERVENTIONS FOR INMATES WITH CIRRHOSIS

The following recommendations apply to all inmates with cirrhosis, whether they have ongoing or resolved HCV infection.

- **Pneumococcal vaccine:** Offer to all HCV-infected inmates with cirrhosis.
  - → *See the BOP Clinical Guidance on Immunization.*
- **Hepatocellular carcinoma (HCC) screening:** Liver ultrasound is recommended every six months for patients with both cirrhosis *and* chronic HCV infection.
- **Esophageal varices screening:** Screening for esophageal and gastric varices with esophagogastroduodenoscopy (EGD) is recommended for patients diagnosed with cirrhosis.

Other healthcare interventions recommended for patients with cirrhosis may include:

- Nonselective beta blockers for prevention of variceal bleeding in patients with esophageal varices.
- Antibiotic prophylaxis if risk factors are present for spontaneous bacterial peritonitis.
- Optimized diuretic therapy for ascites.
- Lactulose and rifaximin therapy for encephalopathy.

In general, NSAIDs should be avoided in advanced liver disease/cirrhosis, and metformin should be avoided in decompensated cirrhosis. The detailed management of cirrhosis is beyond

the scope of this document. Other resources should be consulted for more specific recommendations related to this condition.

5. BOP PRIORITY CRITERIA FOR HCV TREATMENT

SVR (virologic cure) rates of 90% or higher can be achieved with current DAA regimens. Eradication of HCV is associated with a number of improved outcomes, including a reduction in the following: liver inflammation and fibrosis, severity of advanced liver disease and its complications, risk of liver cancer and liver-related mortality, need for liver transplantation, and transmission of HCV infection.

All sentenced inmates with chronic HCV infection are eligible for consideration of treatment. Certain cases are at higher risk for complications or disease progression and may require more urgent consideration for treatment. The BOP has established **PRIORITY CRITERIA** to ensure that inmates with the greatest need are identified and treated first. Additional criteria for treatment have also been established (see *Other Criteria For Treatment*).

PRIORITY LEVEL 1: HIGH PRIORITY FOR TREATMENT *

- **ADVANCED HEPATIC FIBROSIS**
  - APRI ≥ 2.0, or
  - Metavir or Batts/Ludwig stage 3 or 4 on liver biopsy, or
  - Known or suspected cirrhosis
- **LIVER TRANSPLANT RECIPIENTS**
- **HEPATOCELLULAR CARCINOMA (HCC)**
- **COMORBID MEDICAL CONDITIONS ASSOCIATED WITH HCV, INCLUDING:**
  - Cryoglobulinemia with renal disease or vasculitis
  - Certain types of lymphomas or hematologic malignancies
  - Porphyria cutanea tarda
- **IMMUNOSUPPRESSANT MEDICATION FOR A COMORBID MEDICAL CONDITION**
  - Some immusuppressant medications (e.g., certain chemotherapy agents and tumor necrosis factor inhibitors) may be needed to treat a comorbid medical condition, but are not recommended for use when infection is present. Although data are insufficient and current guidelines are inconsistent regarding treatment of HCV infection in this setting, such cases will be considered for prioritized treatment of HCV on an individual basis.
- **CONTINUITY OF CARE FOR THOSE ALREADY STARTED ON TREATMENT**, including inmates who are newly incarcerated in the BOP.

PRIORITY LEVEL 2: INTERMEDIATE PRIORITY FOR TREATMENT *

- **EVIDENCE FOR PROGRESSIVE FIBROSIS**
  - APRI score ≥ 0.7
  - Stage 2 fibrosis on liver biopsy

(PRIORITY LEVEL 2 criteria continues on next page)

- **COMORBID MEDICAL CONDITIONS** associated with more rapid progression of fibrosis
  - Coinfection with HBV or HIV
  - Comorbid liver diseases (e.g., autoimmune hepatitis, hemochromatosis, fatty infiltration of the liver, steatohepatitis)
  - Diabetes mellitus
- **CHRONIC KIDNEY DISEASE (CKD)** with GFR $\leq$ 59 mL/min per 1.73 m^2
- **BIRTH COHORT 1945–1965**

PRIORITY LEVEL 3: LOW PRIORITY FOR TREATMENT *

- Stage 0 to stage 1 fibrosis on liver biopsy
- APRI < 0.7
- All other cases of HCV infection meeting the eligibility critera for treatment, as noted right below under *Other Criteria for Treatment*.

OTHER CRITERIA FOR TREATMENT

In addition to meeting the above criteria for PRIORITY LEVELS 1–3, inmates being considered for treatment of HCV infection should:

- Have no contraindications to, or signicifant drug interactions with, any component of the treatment regimen.
- Not be pregnant, especially for any regimen that would require ribavirin or interferon.
- Have sufficient time remaining on their sentence in the BOP to complete a course of treatment.
  - *Inmates with high priority criteria (**PRIORITY LEVEL 1**), but insufficient time remaining in BOP custody, may be considered for treatment if they will have access to medications and health care providers for continuity of care at the time of release.*
  - *Long-term, pre-sentence detainees in BOP custody with high priority criteria may be considered for treatment if continuity of care can be reasonbly assured and there is reliably sufficient time remaining in custody to complete treatment.*
- Have a life expectancy > 18 months.
- Demonstrate a willingness and an ability to adhere to a rigorous treatment regimen and to abstain from high-risk activities while incarcerated.
  - *Inmates with with evidence for ongoing high-risk behaviors, e.g., injection drug use, are considered for HCV treatment on an individual basis. Referral for evaluation and treatment of substance abuse is recommended.*

6. RECOMMENDED TREATMENT REGIMENS

Recommendations for preferred HCV treatment regimens continue to evolve, but still depend on several factors:

- **HCV GENOTYPE**
- **PRIOR HCV TREATMENT HISTORY**
- **COMPENSATED VS. DECOMPENSATED LIVER DISEASE**
- **RESISTANCE-ASSOCIATED SUBSTITUTIONS (CERTAIN CLINICAL SCENARIOS)**
- **DRUG-DRUG INTERACTIONS**

- ***SPECIAL CONSIDERATIONS:*** *Certain conditions require special consideration when selecting an HCV treatment regimen, including decompensated cirrhosis, chronic kidney disease, solid organ transplant recipients, and pregnancy. These SPECIAL CONDITIONS are addressed in Section 8.*
- ***COST:*** *The cost of direct acting antiviral (DAA) regimens can vary widely. When more than one regimen is appropriate for an individual case, the most cost-effective regimen is recommended, taking into consideration all the factors listed in the BOX above.*

DIRECT ACTING ANTIVIRAL MEDICATIONS (DAAS)

As the name implies, these antiviral medications for HCV infection act directly on some part of the virus, usually the replication mechanism.

Currently, there are three classes of HCV DAAs: polymerase inhibitors (-buvir), protease inhibitors (-previr), and NS5A replication complex inhibitors (-asvir).

- ***DAAs cannot be used as monotherapy; they must be used in combination with at least one other DAA or with ribavirin, and in some cases with peginterferon, depending on the clinical scenario.***
- ***The most commonly recommended regimens are briefly described below.*** *More detailed information about the regimens and the individual medications—including indications, contraindications, dosing and duration, and drug interactions—may be found in the the AASLD guidance, manufacturer's prescribing information, Facts and Comparisons (available in BEMR), and other validated resources.*

DACLATASVIR + SOFOSBUVIR

- **USE:** Once-daily daclatasvir coadministered with 400 mg of sofosbuvir once daily, with or without food, is FDA-approved for the treatment of **HCV genotype 1 and 3**.
  - AASLD currently recommends this combination as an option for treatment of **HCV genotypes 1, 2, 3, and 4** in various clinical scenarios **with decompensated cirrhosis**.
  - If there are no contraindications, ribavirin is added to the regimen in decompensated cirrhosis and in some HCV treatment-experienced cases.
- **DOSING:** The usual dose of daclatasivir is 60 mg once daily, with or without food.
  - Dosage adjustment is required with strong CYP3A inhibitors (30 mg once daily) and with moderate CYP3A inducers (90 mg once daily).
    - *Daclatasvir is contraindicated with strong CYP3A inducers (e.g., carbamazepine, phenytoin, and rimamycin antimycobacterials) and is not recommended with amiodarone.*

- When coadministered with antiretrovirals for HIV infection—the dose of daclatasvir is decreased to 30 mg with indinavir, nelfinavir, saquinavir, ritonavir-boosted atazanavir, or any cobicistat-containing regimen except darunavir; the dose of daclatasvir is increased to 90 mg with efavirenz, etravirine, or nevirapine.

- **DURATION:** The usual duration of treatment is 12 weeks in patients with no cirrhosis,
  - Response rates are diminished in cirrhosis; the optimal duration for treatment of HCV with cirrhosis is not well-established, but AASLD recommends longer treatment durations of 16 to 24 weeks, depending on the clinical scenario.

ELBASVIR/GRAZOPREVIR (ZEPATIER®)

- **FORMULATION/USE:** A coformulation of 50 mg of elbasvir (an HCV NS5A inhibitor) and 100 mg of grazoprevir (an HCV NS3 protease inhibitor) is FDA-approved for treatment of **HCV genotypes 1 and 4.**
  - *In HCV genotype 1a, NS5A resistance testing is recommended prior to treatment, if GFR is ≥30.*
- **DOSING AND DURATION:** The usual dose and duration is one tablet orally once daily, with or without food, for 12 weeks.
  - 16 weeks is recommended for **HCV genotype 1a** with baseline NS5A polymorphisms or for **HCV genotype 4** treatment-experienced with peginterferon + ribivarin.
  - Sofosbuvir is added to elbasvir/grazoprevir when treating **HCV genotype 3** with compensated cirrhosis and previously treated with pegylated interferon + ribavirin.
  - Weight-based ribavirin is added to elbasvir/grazoprevir for the following: **HCV genotype 1a** with baseline NS5A polymorphisms; **HCV genotype 1a or 1b** treatment-experienced with PEG- peginterferon + ribivarin + HCV protease inhibitor; or **HCV genotype 4** treatment-experienced with peginterferon + ribivarin.
  - No dosage adjustment is required for decreased renal function or hemodialysis, although the ribavirin dose must be adjusted for GFR < 50.
- **CONTRAINDICATIONS AND USE NOT RECOMMENDED :**
  - Elbasvir/grazoprevir is contraindicated in decompensated cirrhosis (CTP score ≥ 7), or with certain medications.
  - Contraindicated medications include phenytoin, carbamazepine, rifampin, efavirenz, HIV protease inhibitors (atazanavir, darunavir, lopinavir, saquinavir, and tipranavir), and cyclosporine.
  - Elbasvir/grazoprevir is not recommended with moderate CYP3A inducers or with strong CYP3A inhibitors.

GLECAPREVIR/PIBRENTASVIR (MAVYRET®)

- **FORMULATION/USE:** A coformulation of 100 mg of glecaprevir and 40 mg of pibrentasvir is FDA-approved for treatment of **HCV genotypes 1, 2, 3, 4, 5, or 6**, without cirrhosis or with compensated cirrhosis (Child-Pugh A). Glecaprevir/pibrentasvir is also indicated for the treatment of adult patients with **HCV genotype 1** infection, previously treated with a regimen containing an HCV NS5A inhibitor or an NS3/4A protease inhibitor, but not both.

- **DOSING AND DURATION:** The usual dose is three tablets (total daily dose: glecaprevir 300mg and pibrentasvir 120mg) taken orally, once daily, with food, for treatment-naïve patients. No dosage adjustment is required in patients with mild, moderate, or severe renal impairment, including those on dialysis. The usual duration of treatment is 12 weeks, except as noted below:
  - Treatment duration of 8 weeks is recommended for **all genotypes** with no cirrhosis if they are treatment-naïve or treatment-experienced with PEG-IFN + RBV.
  - Treatment duration of 16 weeks is an AASLD alternative regimen for:
    1) HCV genotype 1, without cirrhosis or with compensated cirrhosis (Child-Pugh A), in patients who are treatment-experienced with an NS5A inhibitor without prior treatment with an NS3/4A inhibitor; and
    2) HCV genotype 3, without cirrhosis or compensated cirrhosis (Child-Pugh A), in patients who are treatment-experienced with PEG-IFN and RBV, with or without SOF.
- **USES NOT RECOMMENDED:**
  - Glecaprevir/ pibrentasvir is not recommended for use with certain medications (e.g., carbamazepine, efavirenz, and St. John's wort).
  - Glecaprevir/ pibrentasvir is not recommended for use with moderate hepatic impairment (Child-Pugh B).
- **CONTRAINDICATION:** It is contraindicated with severe hepatic impairment (Child-Pugh C) or with coadministration with atazanavir and rifampin.
- **WARNING:** Risk of Hepatitis B virus reactivation in patients coinfected with HCV and HBV.

LEDIPASVIR/SOFOSBUVIR (HARVONI®)

- **FORMULATION/USE:** A coformulation of 90 mg of ledipasvir and 400 mg of sofosbuvir is FDA-approved for treatment of **HCV genotypes 1, 4, 5, and 6**; alone or in combination with ribavirin, without or with cirrhosis, compensated or decompensated.
- **DOSING AND DURATION:** The usual dose is one tablet orally once daily, with or without food, for 12 or 24 weeks, depending on the clinical scenario.
  - AASLD recommends only an 8-week course of treatment in a subgroup of HCV-infected persons who have **genotype 1a or 1b,** have an HCV viral load <6 million IU/ml, and are treatment-naïve—but who are not black, are not HIV-coinfected, and do not have cirrhosis.
- **USES NOT RECOMMENDED:**
  - Ledipasvir/sofosbuvir is not recommended for use with certain anticonvulsants (e.g., carbamazepine, phenytoin, phenobarbital, or oxcarbazepine), certain rifamycin antimycobacterials (e.g., rifabutin, rifampin, or rifapentine), or the antiarrhythmic, amiodarone.
  - The dose and safety of ledipasvir/sofosbuvir is unknown in severe renal impairment; it is not recommended by AASLD in CKD with GFR < 30 mL/min/1.73m^2.

PARITAPRAVIR/RITONAVIR/OMBITASVIR/DASABUVIR (VIEKIRA XR™)

- **FORMULATION:** This treatment includes three tablets, each coformulated with 50 mg of paritaprevir, 33.33 mg of ritonavir, 8.33 mg of ombitasvir, and 200 mg tablets of dasabuvir.
- **USE:** This is an FDA-approved treatment of **HCV genotype 1**, alone (for **genotype 1b**) or in combination with ribavirin (for **genotype 1a**).
  - AASLD also recommends this as a treatment option for **HCV genotype 1b** with CKD and GFR <30 for whom urgent HCV treatment is needed.
- **DOSING AND DURATION:** The usual dose is three tablets once daily with a meal. Duration of treatment is either 12 weeks for **genotype 1a** without cirrhosis, or **genotype 1b** with or without compensated cirrhosis; or 24 weeks for **genotype 1a** with compensated cirrhosis.
- **CONTRAINDICATION:** This treatment is contraindicated for use with decompensated cirrhosis.

SOFOSBUVIR/VELPATASVIR (EPCLUSA®)

- **FORMULATION/USE:** A coformulation of 400 mg of sofosbuvir and 100 mg of velpatasvir is FDA-approved for treatment of **HCV genotypes 1, 2, 3, 4, 5, and 6**, with no cirrhosis or with compensated cirrhosis, or for decompensated cirrhosis in combination with ribavirin.
- **DOSING AND DURATION:** The usual dose is one tablet orally once daily, with or without food, for 12 weeks.
- **USES NOT RECOMMENDED:**
  - Sofosbuvir/velpatasvir is not recommended for use with certain anticonvulsants (e.g., carbamazepine, phenytoin, phenobarbital, or oxcarbazepine), certain rifamycin antimycobacterials (e.g., rifabutin, rifampin, or rifapentine), the antiarrhythmic amiodarone, certain antiretrovirals (efavirenz, or tipranavir/ritonavir), or proton pump inhibitors.
  - The dose and safety of sofosbuvir/velpatasvir is unknown in severe renal impairment; it is not recommended in CKD with GFR < 30 mL/min/1.73m^2.
- **CONTRAINDICATION:** If there are contraindicatons to ribavirin, it should not be used in combination with sofosbuvir/velpatasvir.

SOFOSBUVIR/VELPATASVIR/VOXILAPREVIR (VOSEVI®)

- **FORMULATION/USE:** A coformulation of 400 mg of sofosbuvir, 100 mg of velpatasvir, and 100 mg of voxilaprevir is FDA-approved for treatment of adult patients without cirrhosis or with compensated cirrhosis (Child-Pugh A) with **HCV genotypes 1, 2, 3, 4, 5, or 6**, infections previously treated with a regimen containing an NS5A inhibitor, or **HCV genotypes 1a or 3** infection previously treated with sofosbuvir without an NS5A inhibitor.
- **DOSING AND DURATION:** The usual dose is one tablet (total daily dose: 400 mg of sofosbuvir, 100mg of velpatasvir, and 100mg of voxilaprevir) taken orally, once daily, with food, for 12 weeks for **HCV genotypes 1, 2, 3, 4, 5, or 6** previously treated with an NS5A inhibitor or **HCV genotypes 1a or 3** treated with sofosbuvir without an NS5A inhibitor. A dosage recommendation cannot be made for patients with severe renal impairment or end stage reanl disease.

- **USES NOT RECOMMENDED:**
  - Not recommended for use with P-gp inducers and/or moderate to potent CYP inducers (e.g., carbamazepine, St. John's wort).
  - Sofosbuvir/velpatasvir/voxilaprevir is not recommended for use with moderate hepatic impairment (Child-Pugh B).
- **CONTRAINDICATION:** It is contraindicated with severe hepatic impairment (Child-Pugh C) or with coadministration with Rifampin.
- **WARNING:**
  - Sofosbuvir/velpatasvir/voxilaprevir is not recommended for use with moderate hepatic impairment (Child-Pugh B).
  - Serious bradycardia may occur with amiodarone coadministration, particularly in patients receiving beta blockers, or those with inderlying cardiac comorbidities and/or advanced liver disease. In patients without alternative viable treatment options, cardiac monitoring is recommended.

SOFOSBUVIR + SIMEPREVIR

- **DOSING/DURATION/USE:** Taken together once daily, 400 mg of sofosbuvir and 150 mg of simeprevir, for 12 weeks in patients with no cirrhosis.
  - When used as an alternative regimen to treat patients with compensated cirrhosis, the duration is extended to 24 weeks, with or without ribavirin.
  - This combination is FDA-approved for treatment of **HCV genotype 1**.
    - ➔ *When used for the treatment of **HCV genotype 1a** with cirrhosis, a test for HCV NS3 virologic resistance looking for the Q80K polymorphism must be obtained prior to treatment.*

PREFERRED TREATMENT REGIMENS

The preferred treatment regimens currently recommended by AASLD/IDSA are included in this BOP guidance in the following appendices:

- *Appendix 1, Treatment Recommendations for HCV with Compensated Cirrhosis*
- *Appendix 2, Treatment Recommendations for HCV with No Cirrhosis*

➔ *Please refer to the AASLD/IDSA website (www.hcvguidelines.org) for any updates since September 21, 2017.*

ALTERNATIVE TREATMENT REGIMENS: The AASLD/IDSA guidance includes recommendations for some regimens that are not specifically FDA-approved and also describe alternative treatment regimens for situations in which a preferred regimen is not an option. These alternative regimens are not included in this BOP guidance, but can be considered on a case-by-case basis.

POTENTIAL DRUG INTERACTIONS

In addition to the genotype, prior HCV treatment history, and status of hepatic compensation, as noted above, it is essential to review each treatment candidate for potential drug interactions prior to selecting the most appropriate regimen for HCV treatment. Adjustments of the inmate's current medications may be needed prior to starting treatment for HCV. Refer to the appendices at the end of this document for specific drug interactions. Other useful resources for potential drug interactions include the AASLD/IDSA guidance, the individual manufacturers' prescribing information, and the DHHS Guidelines for the Use of Antiretroviral Agents in HIV-1-Infected Adults and Adolescents.

REGIMENS NOT RECOMMENDED

Regimens that are not recommended for use include the following:

- Monotherapy with peginterferon, ribavirin, or any of the DAAs.
- Dual therapy with peginterferon and ribavirin, except when urgent HCV treatment is needed for **genotypes 2, 3, 5, or 6** with GFR < 30.
  - ➔ *See discussion of chronic kidney disease in Section 8.*
- Triple therapy with peginterferon, ribavirin, and the HCV protease inhibitors boceprevir, simeprevir, or telaprevir.
- HCV protease inhibitors for **genotypes 2, 3, 5, or 6** (paritaprevir, simeprevir).

7. MONITORING

➔ *See Appendix 3, Hepatitis C Treatment Monitoring Schedule, for a summary chart of the monitoring recommendations.*

PRETREATMENT ASSESSMENT

Prior to starting treatment for HCV infection, PATIENT EDUCATION is recommended—including, but not limited to: how to take the medication, the importance of adherence, monitoring and follow up, and potential medication side effects. When ribavirin is used, specific counseling about the risks and recommendations related to pregnancy should be provided.

Pretreatment assessment should be accomplished within three months of the projected start of treatment, and should include the following:

- **Laboratory tests** including CBC, PT/INR, liver panel, serum creatinine, calculated GFR.
  - ➔ *Obtain quatitative HCV RNA viral load and HCV genotype if the most recent results are more than one year old or if not previously performed.*
  - ➔ *A urine drug screen is not required as part of the pretreatment evaluation, and is recommended only if ongoing substance use is suspected or if it is otherwise clinically indicated.*
- **Calculation of the APRI score** using results from the pretreatment labs. (An APRI score is not needed if there is confirmed cirrhosis.)

(PRETREATMENT ASSESSMENT list continues on next page)

- **Calculation of current CTP score** for inmates with known or suspected cirrhosis.
- **Assessment for significant drug-drug interactions.**
- **Assessment for current/prior medication adherence.**
- **Review of incident report history** for high-risk behaviors (alcohol/drug possession/use; tattooing).
- **For ribavirin-containing regimens:** In addition to the above, obtain a pregnancy test in all women with childbearing potential. A pretreatment ECG is recommended for inmates with preexisting coronary heart disease.
- **For interferon-containing regimens:** In addition to the above, pretreatment evaluation should include a WBC with differential, TSH/free T4. Such regimens should also include a mental health evaluation.

Testing for NS5A resistance-associated substitutions (RASs) is recommended prior to treatment with the following regimens or situations:

- Elbasvir/grazoprevir for **HCV genotype 1a and GFR ≥30.**
- Sofosbuvir/velpatasvir for treatment-naïve **HCV genotype 3** with cirrhosis.
- Sofosbuvir/velpatasvir for **HCV genotype 3** treatment-experienced with PEG-IFN + RBV and no cirrhosis.
- Daclatasvir + sofosbuvir as an alternative regimen for treatment-naïve **HCV genotype 3** with cirrhosis.
- Daclatasvir + sofosbuvir as an alternative regimen for **HCV genotype 3** treatment-experienced with PEG-IFN + RBV, and no cirrhosis.
- NS5A resistance testing may be considered when ledipasvir/sofosbuvir is an option for treatment-experienced **HCV genotype 1a** with no cirrhosis or compensated cirrhosis.
  - ➔ *NS3/4A resistance testing is no longer routinely recommended.*

ON-TREATMENT MONITORING

On-treatment monitoring should include the following:

- **An outpatient clinic visit at 2 weeks and at 4 weeks** after starting therapy, and monthly thereafter; more frequently as clinically indicated.
  - ▸ The primary focus at the 2-week visit is assessment of medication adherence, side effects and symptoms of hepatic decompensation, adverse drug reactions, and drug-drug interactions.
- **Labs drawn at 4 weeks** after the start of therapy should include CBC, serum creatinine, calculated GFR, liver panel including ALT, and quantitative HCV viral load sensitive to ≤ 25 IU/ml; others as clinically indicated.
  - ▸ **For regimens containing interferon and/or ribavirin:** A CBC should also be drawn 2 weeks after starting therapy, then at 4 weeks, then monthly; more frequently as clinically indicated. Interferon and/or ribavirin dosage adjustments may be required.
    - ➔ *See Appendix 4, Management of Hematologic Changes.*

(ON-TREATMENT MONITORING list continues on next page)

- **More frequent monitoring of ALT is necessary in certain situations:**
  - **Regimens containing elbasvir/grazoprevir:** For 12-week regimens, a liver panel including ALT should be drawn at 4 weeks and again at 8 weeks, and as clinically indicated. For 16-week regimens, a liver panel including ALT should be drawn at 4 weeks and again at 12 weeks.
  - **Patients with compensated cirrhosis** who are treated with paritaprevir/ritonavir/ombitasvir (with or without dasabuvir) require monitoring by a liver panel—including ALT and signs of decompensated liver disease—at 2 weeks, 4 weeks, and as clinically indicated.
  - **Increases in the ALT should prompt more frequent monitoring or early discontinuation.** Asymptomatic ALT increases of less than tenfold should be monitored approximately every 2 weeks. Early discontinuation of HCV treatment is recommended if ALT increases by tenfold—or if less than tenfold , but accompanied by *symptoms* such as weakness, anorexia, nausea, vomiting, or change in stool color, or *signs* including elevations in conjugated bilirubin, alkaline phosphatase, and INR, related to hepatic dysfunction.
- **If the quantitative HCV viral load is detectable after 4 weeks of treatment**, it should be repeated 2 weeks later. Early discontinuation of HCV treatment is recommended only if there is > 1 log increase from the nadir in HCV viral load after 6 weeks or more of treatment.
  - *HCV viral load testing is no longer required at the end of treatment, but should be obtained in all cases that failed to achieve undetectable levels during treatment.*

- **A test for thyroid stimulating hormone (TSH)** is recommended every 12 weeks only for patients receiving regimens containing interferon. For a 12-week regimen, a TSH should be drawn at the end of treatment, in addition to the pretreatment baseline.

- **Pregnancy testing is required prior to treatment with ribavirin-containing regimens**, and then periodically during and after treatment—usually monthly during treatment and for 6 months after completion of treatment.

- **Monitoring of interferon and/or ribavirin-containing regimens** has not changed and is included in *Appendix 3, Hepatitis C Treatment Monitoring Schedule*.

- **For patients with evidence of chronic HBV infection (i.e., HBsAg positive) who do not meet criteria for antiviral HBV therapy**, quantitative HBV DNA levels are recommended prior to starting HCV DAA treatment, periodically during DAA treatment (usually every four weeks), and immediately after DAA treatment. Initiate antiviral HBV treatment if the HBV DNA level increases more than 10-fold from baseline or above 1,000 IU/ml if it was previously undetectable.

POST-TREATMENT MONITORING

- A quantitative HCV RNA viral load assessment is recommended at 12 weeks after completion of treatment; if HCV is undetectable, it defines an SVR.

- If the HCV viral load is again undetectable at 6 to 12 months after the end of treatment, the inmate may be removed from the chronic care clinic for this condition, so long as he or she has no cirrhosis, complications, or related comorbidities, and the HCV infection has been changed to "resolved" in the problem list.

➔ *Recurrent viremia following an SVR may be due to relapse or reinfection. To help distinguish between the two in such cases, an HCV genotype, along with subtyping for genotype 1, should be obtained. If the post-SVR genotype is the same as the pre-treatment genotype, it is not possible to distinguish relapse from reinfection.*

ONGOING MONITORING

Periodic monitoring is recommended for all those with active infection, including acute HCV infection, HCV treatment failures, relapse of HCV infection or reinfection, and those with chronic HCV infection who are not yet treated.

- **For cases without advanced fibrosis, cirrhosis, or complications**, annual evaluation is appropriate. This evaluation should include a focused review of systems and patient education relevant to HCV, vital signs and a focused physical examination, and lab monitoring (CBC, PT/INR, liver panel, serum creatinine, calculated GFR, and calculation of the APRI score).

- **For patients with cirrhosis or significant comorbidities**, evaluation is recommended at least every six months; more frequently as clinically indicated.

- **In cases of acute HCV infection**, monitoring for spontaneous clearance of the infection with ALT and quantitative HCV RNA levels every four to eight weeks, for six to twelve months, is recommended. If viremia persists after that time, continue to monitor and manage the case as a chronic infection. In most cases of acute HCV infection, treatment may be deferred to allow for spontaneous clearance of viremia. However, in some cases there may be a compelling reason to treat the acute infection in order to prevent severe complications, e.g., HCV infection superimposed on established cirrhosis or advanced fibrosis.

8. SPECIAL CONSIDERATIONS

HCV INFECTION WITH MORE THAN ONE GENOTYPE

Very little data are available to guide the selection of a DAA regimen when more than one HCV genotype are present at the same time. In such cases, selection of a regimen that is effective against both of the existing genotypes is appropriate, in consultation with a BOP Hepatitis Clinical Pharmacy Consultant or Central Office Physician.

HBV COINFECTION

In patients coinfected with HBV and HCV, HBV reactivation may occur during or after treatment with HCV DAAs. Testing for HBV infection—including HBsAg, anti-HBs, and anti-HBc, as well as HBV DNA levels in those with a reactive HBsAg—is recommended for all patients being considered for treatment of HCV infection.

- **If criteria for treatment of HBV are met**, it is recommended that HBV treatment be started prior to or at the same time as HCV treatment, and monitored according to HBV treatment guidance.
- **If criteria for treatment of HBV infection are NOT met**, monitoring of HBV DNA is recommended every 4 weeks during HCV treatment and for 3 months after treatment is completed. Initiate antiviral HBV treatment if the HBV DNA level increases more than 10-fold from baseline or above 1,000 IU/ml if it was previously undetectable. Alternatively, HBV antiviral therapy may be prescribed during HCV treatment and for 3 months after treatment completion.
- **For isolated anti-HBc positive cases with negative HBsAg and anti-HBs**, monitor ALT at baseline, at the completion of HCV treatment, and again during post-treatment follow-up.

HIV COINFECTION

Currently recommended HCV regimens are equally effective for HCV mono-infection and coinfection with HIV. However, an alternative HCV regimen or an alternative antiretroviral medication regimen may be necessary due to potential drug interactions between the HCV DAAs and certain antiretrovirals.

The following are links to tables showing drug interactions between the HIV antiretrovirals and the HCV Direct Acting Antivirals (DAAs):

- *https://aidsinfo.nih.gov/guidelines/htmltables/1/5536 (Table 12)*
- *https://www.hcvguidelines.org/unique-populations/hiv-hcv (scroll to the bottom of the page)*

DECOMPENSATED CIRRHOSIS

Treatment of HCV patients with decompensated cirrhosis should be managed in consultation with an experienced clinician/specialist, with treatment requests considered on a case-by-case basis. HCV treatment recommendations for patients with decompensated cirrhosis apply regardless of eligibility for a liver transplant or the presence of hepatocellular carcinoma. The regimens and other considerations are listed below. Inmates with decompensated cirrhosis and a CTP score ≥ 9 may meet reduction in sentence criteria

➔ *See **TABLE 2** for a summary of treatment recommendations for decompensated cirrhosis.*

HCV GENOTYPE 1, 4, 5, OR 6 WITH DECOMPENSATED CIRRHOSIS:

➔ *See the section that discusses the use of ribavirin with this group.*

- **The treatment options for HCV genotype 1, 4, 5, or 6 with decompensated cirrhosis, either treatment-naïve or treatment-experienced with peginterferon+ribivarin, are as follows:**
  - Ledipasvir/sofosbuvir + low initial dose ribavirin for 12 weeks (or ledipasvir/sofosbuvir for 24 weeks in ribavirin-ineligible cases)
  - Sofosbuvir/velpatasvir + ribavirin for 12 weeks (or sofosbuvir/velpatasvir for 24 weeks in ribavirin-ineligible cases)
  - **Genotypes 1 or 4 only:** Daclatasvir + sofosbuvir + low initial dose ribavirin for 12 weeks (or daclatasvir + sofosbuvir for 24 weeks in ribavirin-ineligible cases)

- **For cases with a history of treatment failure with a regimen containing sofosbuvir, one of the the following two regimens is recommended:**
  - Ledipasvir/sofosbuvir + low initial dose ribavirin for 24 weeks
  - Sofosbuvir/velpatasvir + ribavirin for 24 weeks

- **For cases with a history of treatment failure with a regimen containing an NS5A inhibitor, the following regimen is recommended:**
  - Sofosbuvir/velpatasvir + ribavirin for 24 weeks

HCV GENOTYPE 2 OR 3 WITH DECOMPENSATED CIRRHOSIS:

➔ *See the section that discusses the use of ribavirin with this group.*

- **The treatment options for HCV genotype 2 or 3 with decompensated cirrhosis, either treatment-naïve or treatment-experienced with peginterferon+ribivarin, are as follows:**
  - Once-daily daclatasvir + once-daily sofosbuvir + low initial dose of ribavirin for 12 weeks (or daclatasvir + sofosbuvir for 24 weeks in ribavirin-ineligible cases)
  - Once-daily sofosbuvir/velpatasvir + ribavirin for 12 weeks (or sofosbuvir/velpatasvir for 24 weeks in ribavirin-ineligible cases)

- **For cases with a history of treatment failure with a regimen containing sofosbuvir or an NS5A inhibitor, the following regimen is recommended:**
  - Sofosbuvir/velpatasvir + ribavirin for 24 weeks.

USE OF RIBAVIRIN IN RIBAVRIN-ELIGIBLE CASES WITH DECOMPENSATED CIRRHOSIS

- **When used with ledipasvir/sofosbuvir *or* daclatasvir + sofosbuvir**, the initial dose of ribavirin should be a total daily dose of 600 mg, in divided doses twice daily, increasing to a full weight-based regimen as tolerated (RBV-LD).
- **For use with sofosbuvir/velpatasvir**, AASLD indicates that a full weight-based ribavirin dose may be started in cases with CTP Class B decompensated cirrhosis, while the low initial dose (described in the above bullet) is used in cases with CTP Class C.
- **Ribavirin dosage adjustments may be required for inmates with low GFR or hemoglobin levels.**

CONTRAINDICATIONS FOR CTP CLASSES B AND C:

- Elbasvir/grazoprevir is contraindicated in decompensated cirrhosis with CTP scores ≥ 7 (CTP class B or C).
- Interferon-containing regimens are contraindicated in decompensated cirrhosis.
- The use of paritaprevir/ritonavir/ombitasvir/dasabuvir is contraindicated with severe hepatic impairment (CTP class C) and is not recommended in CTP class B.
- Simeprevir is not recommended for use in decompensated cirrhosis with CTP class B or C.

TABLE 2: HCV TREATMENT RECOMMENDATIONS FOR DECOMPENSATED CIRRHOSIS

TREATMENT HISTORY	GENOTYPE		
	1 OR 4	2 OR 3	5 OR 6
TN or TE with PEG-IFN + RBV (*RBV eligible*)	LDV/SOF + RBV-LD: 12 wks SOV/VEL + RBV*: 12 wks DCV + SOF + RBV-LD: 12 wks	DCV + SOF + RBV-LD: 12 wks SOV/VEL + RBV*: 12 wks	LDV/SOF + RBV-LD: 12 wks SOV/VEL + RBV*: 12 wks
TN or TE with PEG-IFN + RBV (*RBV ineligible*)	LDV/SOF: 24 wks SOV/VEL: 24 wks DCV + SOF: 24 wks	DCV + SOF: 24 wks SOV/VEL: 24 wks	LDV/SOF: 24 wks SOV/VEL: 24 wks
TE with SOF (*RBV eligible*)	LDV/SOF + RBV-LD: 24 wks SOV/VEL + RBV*: 24 wks	SOF/VEL + RBV*: 24 wks	LDV/SOF + RBV-LD: 24 wks SOV/VEL + RBV*: 24 wks
TE with NS5A (*RBV eligible*)	SOV/VEL + RBV*: 24 wks	SOF/VEL + RBV*: 24 wks	SOV/VEL + RBV*: 24 wks

ABBREVIATIONS: See GLOSSARY.

* A full weight-based ribavirin dose may be started in cases with CTP Class B decompensated cirrhosis, while low initial dose is used in cases with CTP Class C.

LIVER TRANSPLANT RECIPIENTS

→ *See TABLE 3 below for a summary of HCV treatment recommendations for liver transplant recipients.*

HCV GENOTYPE 1, 4, 5, OR 6 IN LIVER TRANSPLANT RECIPIENTS:

Recommended regimens for HCV genotype 1, 4, 5, or 6 in liver transplant recipients with ongoing or recurrent HCV infection—either treatment-naïve or treatment-experienced—are determined by the absence or presence of cirrhosis in the allograft, as described below.

→ *Alternative regimens are described in the AASLD guidance.*

- **No cirrhosis in the allograft:**
  - Glecaprevir/pibrentasvir once daily for 12 weeks or
  - Ledipasvir/sofosbuvir once daily + weight based ribavirin twice daily for 12 weeks
- **Compensated cirrhosis in the allograft:**
  - Ledipasvir/sofosbuvir once daily + weight based ribavirin twice daily for 12 weeks
- **Decompensated cirrhosis in the allograft:**
  - Ledipasvir/sofosbuvir once daily + low initial dose ribavirin twice daily for 12 weeks

HCV GENOTYPE 2 OR 3 IN LIVER TRANSPLANT RECIPIENTS:

Recommended regimens for HCV genotype 2 or 3 in liver transplant recipients with ongoing HCV infection—either treatment-naïve or treatment-experienced—are determined by the absence or presence of cirrhosis in the allograft, as follows:

- **No cirrhosis in the allograft:**
  - Glecaprevir/pibrentasvir once daily for 12 weeks or
  - Ledipasvir/sofosbuvir once daily + weight-based ribavirin twice daily for 12 weeks
  - Ledipasvir/sofosbuvir once daily + low initial dose ribavirin twice daily for 12 weeks **for treatment-naïve or treatment-experienced patient with decompensated cirrhosis.**
- **Compensated cirrhosis in the allograft:**
  - Ledipasvir/sofosbuvir once daily + weight based ribavirin twice daily for 12 weeks
- **Decompensated cirrhosis in the allograft:**
  - Ledipasvir/sofosbuvir once daily + low initial dose ribavirin twice daily for 12 weeks

TABLE 3: HCV TREATMENT RECOMMENDATIONS FOR HCV IN LIVER TRANSPLANT RECIPIENTS

HCV TREATMENT RECOMMENDATIONS FOR ONGOING/RECURRENT HCV IN LIVER TRANSPLANT RECIPIENTS (TREATMENT-NAÏVE OR EXPERIENCED)		
STAGE OF FIBROSIS IN ALLOGRAFT	GENOTYPE	
	1, 4, 5, OR 6	2 OR 3
No cirrhosis	GLE/PIB: 12 wks LDV/SOF + RBV-WB: 12 wks	GLE/PIB: 12 wks DCV + SOF + RBV-LD: 12 wks
Compensated cirrhosis	LDV/SOF + RBV-WB: 12 wks	DCV + SOF + RBV-LD: 12 wks
Decompensated cirrhosis	LDV/SOF + RBV-LD: 12 wks	DCV + SOF + RBV-LD: 12 wks VEL/SOF + RBV*: 12 wks
ABBREVIATIONS: See GLOSSARY. * A full weight-based ribavirin dose may be started in cases with CTP Class B decompensated cirrhosis, while low initial dose is used in cases with CTP Class C.		

→ *Refer to the following table for DAA drug interactions with calcinueurin inhibitors (cyclosporine, tacrolimus): https://www.hcvguidelines.org/unique-populations/post-liver-transplant (scroll to bottom of the page)*

CHRONIC KIDNEY DISEASE (CKD)

HCV is independently associated with the development of chronic kidney disease (CKD). Published studies indicate that HCV is associated with 1) a higher risk of developing proteinuria and CKD; 2) a higher risk for progression to end-stage-liver-disease (ESLD); and 3) an increased risk of mortality for dialysis patients.

No dosage adjustment is required for any of the current DAAs when the GFR is ≥ 30 (CKD stages 1, 2, and 3). For cases being considered for renal transplantation, consultation with the transplant consultant is recommended regarding timing of HCV treatment relative to transplantation.

- **For patients with GFR < 30 (CKD stages 4 and 5), and any HCV genotype—**either with no cirrhosis or with compensated cirrhosis, and either treatment-naïve or treatment-experienced—the recommended DAA treatment regimens are as follows:
  - **Glecaprevir/pibrentasvir once daily for 8 to 16 weeks may be used for all genotypes,** Duration of treatment is the same as for those without CKD. No dosage adjustment is required.
  - **Elbasvir/grazoprevir once daily for 12 weeks may be used ONLY for genotypes 1a, 1b, or 4**. It appears NOT to be a good choice for most DAA-experienced cases. No dosage adjustment is required. NS5A resistance testing is not required when elbasvir/grazoprevir is used to treat genotype 1a with a GFR < 30.

    ➔ *See discussion of elbasvir/grazoprevir in Section 6.*

- **Ribavirin doses must be decreased with GFRs ≤50.** For GFRs 30–50, ribavirin is dosed 200 mg alternating every other day with 400 mg. For GFR <30, including hemodialysis, the ribavirin dose is 200 mg daily.

- **For kidney transplant recipients with HCV genotype 1 or 4** with no cirrhosis or with compensated cirrhosis, either treatment-naïve or treatment-experienced, glecaprevir (300mg) / pibrentasvir (120mg) or ledipasvir (90mg) / sofosbuvir (400mg), once daily for 12 weeks are the preferred DAA regimens. No dosage adjustments are required.

- **For kidney transplant recipients with HCV genotype 2, 3, 5, or 6** with no cirrhosis or with compensated cirrhosis, either treatment-naïve or treatment-experienced, glecaprevir (300mg) / pibrentasvir (120mg) is the preferred DAA regimen. No dosage adjustment is required.

PREGNANCY

Safety and efficacy data are limited regarding use of HCV DAAs during pregnancy. The current AASLD/IDSA guidance does NOT recommend treatment of HCV during pregnancy.

Ribavirin is contraindicated during pregnancy:

- Women of childbearing potential who are being considered for an HCV regimen that includes ribavirin should be counseled on the adverse fetal effects of ribavirin. They should be advised not to become pregnant during treatment with ribavirin *and* for six months after the treatment has ended. They should also be advised that the same risks apply if a male sex partner is being treated with ribavirin.

  ➔ *A negative pregnancy test should be documented prior to starting treatment with ribavirin, monthly during treatment, and for six months after treatment.*

- Men being treated with ribavirin should also be counseled on the adverse fetal effects of ribavirin. They should be advised not to cause pregnancy in their female sex partners during treatment with ribavirin *and* for six months after the treatment has ended.

REFERENCES

AASLD/IDSA. Recommendations for testing, managing, and treating hepatitis C. *AASLD/IDSA website.* *http://www.hcvguidelines.org*. Updated May 24, 2018. Accessed August 2018.

> ***Note about the AASLD/IDSA website:*** *To provide healthcare professionals with timely guidance as new therapies are available and integrated into HCV regimens, the American Association for the Study of Liver Diseases (AASLD) and the Infectious Diseases Society of America (IDSA), have developed a web-based process for the rapid formulation and dissemination of evidence-based, expert-developed recommendations for hepatitis C management.*
>
> ➔ *Please refer to the AASLD/IDSA website for any updates since* May 24, 2018.

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GLOSSARY OF ABBREVIATIONS

AASLD	American Association for the Study of Liver Diseases
ALT	alanine aminotransferase
ANA	antinuclear antibody
APRI	AST to Platelet Ratio Index
AST	aspartate aminotransferase
CBC	complete blood count
CTP score	Child-Turcotte-Pugh score
DAA	direct acting antiviral medication
DCV	daclatasvir
DSV	dasabuvir
EGD	esophagogastroduodenoscopy
EBR	elbasvir
GFR	glomerular filtration rate
GLE	glecaprevir
GZR	grazoprevir
HBV	hepatitis B virus
HBsAg	hepatitis B surface antigen
HCC	hepatocellular carcinoma
HCV	hepatitis C virus
HIV Ab or anti-HIV	HIV antibody
IDSA	Infectious Diseases Society of America
INR	International Normalization Ratio
LDV	ledipasvir
NASH	nonalcoholic steatohepatitis
OBV	ombitasvir
PTV	paritaprevir
PEG-IFN	pegylated interferon, peginterferon
PI	protease inhibitor
PIB	pibrentasivir
PrO	paritaprevir/ritonavir/ombitasvir
PrOD	paritaprevir/ritonavir/ombitasvir/dasabuvir
PT	prothrombin time
RAS	resistance-associated substitution
RBV	ribavirin
RBV-LD	ribavirin low initial dose
SOF	sofosbuvir
SMV	simprevir
SVR	sustained virologic response
TE	treatment-experienced
TN	treatment-naïve
TSH	thyroid stimulating hormone
ULN	upper limit of normal
VEL	velpatasvir
VOX	voxilaprevir

APPENDIX 1. TREATMENT OPTIONS FOR HCV GENOTYPES 1, 4, 5, AND 6[A,B,C]

CONDITION	TREATMENT OPTIONS BY HCV GENOTYPE[D]			
	GENOTYPES 1A AND 1B[E,F,G]		GENOTYPE 4	
	NO CIRRHOSIS	COMPENSATED CIRRHOSIS	NO CIRRHOSIS	COMPENSATED CIRRHOSIS
Treatment-Naïve	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 8 wks ▸ **LDV/SOF:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 12 wks ▸ **LDV/SOF:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 8 wks ▸ **LDV/SOF:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 12 wks ▸ **LDV/SOF:** 12 wks ▸ **SOF/VEL:** 12 wks
Treatment-Experienced w/ PEG-IFN + RBV	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 8 wks ▸ **LDV/SOF:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 8 wks ▸ **LDV/SOF:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **EBR/GZR:** 12 wks ▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks
Treatment-Experienced w/ PI + PEG-IFN + RBV	▸ **GLE/PIB:** 12 wks ▸ **LDV/SOF:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks	NA	NA
Treatment-Experienced w/ SOF + RBV + PEG-IFN *OR* **SOF + PI +/-RBV**	▸ **GLE/PIB:** 12 wks (1a or 1b) ▸ **SOF/VEL/VOX:** 12 wks (1a) ▸ **SOF/VEL:** 12 wks (1b)	▸ **GLE/PIB:** 12 wks (1a or 1b) ▸ **SOF/VEL/VOX:** 12 wks (1a) ▸ **SOF/VEL:** 12 wks (1b)	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks
Treatment-Experienced w/ NS5A inhibitor	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks

A. **All regimens in this Appendix are identified as *RECOMMENDED* in the AASLD guidance.** Alternative regimens may be appropriate in some cases, but are not included in this table. Some AASLD recommended regimens are not FDA-approved, but are based on available evidence.

B **Choice of regimen** is determined by HCV genotype, treatment history, presence of compensated cirrhosis or no cirrhosis, and resistance-associated substitutions; it is also influenced by potential drug interactions and cost.

C. **Recommendations in this table may not be appropriate in decompensated cirrhosis, chronic kidney disease with GFR < 30, liver or kidney transplant recipients.** Refer to the specific sections in this guidance for treatment of HCV in these settings.

D. **Genotypes 5 and 6, with compensated or no cirrhosis:** GLE/PIB (no cirrhosis-8wks; cirrhosis-12 wks), LDV/SOF or SOF/VEL once daily are recommended for treatment-naïve patients or patients who previously failed treatment with PEG-IFN + RBV. Duration of GLE/PIB is 8 weeks in patients without cirrhosis; all other regimens are for 12 weeks. SOF/VEL/VOX once daily for 12 weeks is recommended for DAA-experienced patients with compensated or no cirrhosis.

E. **NS5A resistance testing is recommended prior to treatment with EBR/GZR for all genotype 1a cases, except those with GFR < 30 or with end stage renal disease.** A regimen of EBR/GZR alone is recommended only for cases with no RASs on NS5A resistance testing. **If a RAS is present in genotype 1a,** RBV is added to ELB/GZR for a 16 week duration. Refer to the AASLD guideline on monitoring for specific substitutions associated with resistance.

NS5A resistance testing also may be considered for treatment-experienced genotype 1a cases with or without cirrhosis being considered for LDV/SOF: Resistance levels of 100-fold or less are required to use LDV/SOF in these situations.

F. **EBR/GZR alone is NOT to be used in genotype 1a with certain NS5A RASs and GFR ≥ 30.** HCV virologic resistance testing is required prior to treatment with EBR/GZR for all genotype 1a cases, except those with GFR < 30 or end stage renal disease. A regimen of EBR/GZR alone is recommended only for cases with no RASs on NS5A resistance testing. **If a RAS is present in genotype 1a,** RBV is added to ELB/GZR for a 16-week duration. Refer to the AASLD guideline on monitoring for the specific substitutions associated with resistance.

G. **An 8-week regimen with LDV/SOF** is AASLD-recommended for treatment-naïve **genotype 1a** with an HCV viral load <6 million IU/ml—but who are not black or HIV-coinfected, and who do not have cirrhosis.

MEDICATIONS:
DCV = daclatasvir; ***EBR/GZR***=elbasvir/grazoprevir; ***GLE/PIB*** = glecaprevir/pibrentasvir (Mavyret™);
LDV/SOF = ledipasvir/sofosbuvir (Harvoni ®); ***PEG-IFN*** = pegylated interferon (peginterferon);
PI = protease inhibitor (boceprevir, telaprevir, simeprevir); ***PrO*** = paritaprevir/ritonavir/ombitasvir;
PrOD = paritapravir/ritonavir/ ombitasvir/dasabuvir (Viekira XR™); ***RBV*** = ribavirin; ***SMV*** = simprevir; ***SOF*** = sofosbuvir;
SOF/VEL = sofosbuvir/velpatasvir (Epclusa®); **SOF/VEL/VOX** = sofosbuvir/velpatasvir/voxilaprevir (Vosevi®)

APPENDIX 2. TREATMENT OPTIONS FOR HCV GENOTYPES 2 AND 3 [A,B,C]

CONDITION	TREATMENT OPTIONS BY HCV GENOTYPE			
	GENOTYPE 2		GENOTYPE 3[D]	
	NO CIRRHOSIS	COMPENSATED CIRRHOSIS	NO CIRRHOSIS	COMPENSATED CIRRHOSIS
Treatment-Naïve	▸ **GLE/PIB:** 8 wks ▸ **SOF/VEL:** 12 wks	▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **GLE/PIB:** 8 wks ▸ **SOF/VEL:** 12 wks	▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks
Treatment-Experienced w/ PEG-IFN + RBV	▸ **GLE/PIB:** 8 wks ▸ **SOF/VEL:** 12 wks	▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **SOF/VEL:** 12 wks	▸ **EBR/GZR + SOF:** 12 wks ▸ **SOF/VEL/VOX:** 12 wks
Treatment-Experienced w/ SOF + RBV +/- PEG-IFN	▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **GLE/PIB:** 12 wks ▸ **SOF/VEL:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks
Treatment Experienced w/ SOF + NS5A inhibitor	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX:** 12 wks	▸ **SOF/VEL/VOX + RBV:** 12 wks

A. **All regimens in this Appendix are identified as *RECOMMENDED* in the AASLD guidance.** Alternative regimens may be appropriate in some cases, but are not included in this table. Some AASLD recommended regimens are not FDA-approved, but are based on available evidence.

B **Choice of regimen** is determined by HCV genotype, treatment history, presence of compensated cirrhosis or no cirrhosis, and resistance-associated substitutions; it is also influenced by potential drug interactions and cost.

C. **Recommendations in this table may not be appropriate in cases of decompensated cirrhosis, chronic kidney disease with GFR <30, or liver or kidney transplant recipients.** Refer to the specific sections in this guidance for treatment of HCV in these settings.

D. **NS5A resistance testing is recommended for genotype 3 cases,** either treatment-naïve with cirrhosis or treatment-experienced with PEG-IFN+RBV and no cirrhosis, that are being considered for DCV + or SOF. **If the Y93H RAS is present,** the addition of weight-based RBV to a regimen of either is recommended or a different DAA regimen should be selected, if appropriate.

MEDICATIONS:
DCV = daclatasvir; ***EBR/GZR***=elbasvir/grazoprevir; ***GLE/PIB*** = glecaprevir/pibrentasvir (Mavyret™);
LDV/SOF = ledipasvir/sofosbuvir (Harvoni ®); ***PEG-IFN*** = pegylated interferon (peginterferon);
PI = protease inhibitor (boceprevir, telaprevir, simeprevir); ***PrO*** = paritaprevir/ritonavir/ombitasvir;
PrOD = paritapravir/ritonavir/ ombitasvir/dasabuvir (Viekira XR™); ***RBV*** = ribavirin; ***SMV*** = simprevir; ***SOF*** = sofosbuvir;
SOF/VEL = sofosbuvir/velpatasvir (Epclusa®); **SOF/VEL/VOX** = sofosbuvir/velpatasvir/voxilaprevir (Vosevi®)

APPENDIX 3. HEPATITIS C TREATMENT MONITORING SCHEDULE

Evaluation[1]	Baseline (anti-HCV positive)	Pretreatment (Within 90 days of Tx)	On-Treatment Monitoring (by week of treatment)[2]							12 wks post-treatment	6–12 mos post-treatment
			2	4	8	12	16	20	24		
Clinician evaluation	X	X	X	X	X	X	X	X	X	X	X
HIV Ab, HBV Serology[3], Anti-HAV (IgG)	X										
Prothrombin Time / INR	X	X									
CBC	X	X		X	*As clinically indicated* [4]						
Serum creatinine + eGFR	X	X		X						X	X
ALT, AST, bilirubin, alkaline, phosphatase, albumin	X	X		X							
APRI & CTP scores[5]	X	X									
HCV RNA, quantitative [6]	X	X		X	*See footnote #6.*					X	X
HCV genotype	X										
Assess for drug-drug interactions & adherence		X	*At each clinician evaluation during treatment.*								
Review incident report history for high risk behavior (alcohol / drug possession / use; tattooing)		X	*If indicated.*								
Urine pregnancy test [7] (if childbearing potential)		X		X	X	X	X	X	X	*monthly x 6 mos*	

1 Conduct further diagnostic evaluations as clinically warranted to identify other potential causes of the patient's liver disease such as hemochromatosis, Wilson's disease, or autoimmune hepatitis (e.g., serum iron, serum copper,ANA/ ESR). If any of these conditions are diagnosed or strongly suspected, a pre-treatment liver biopsy should be considered.

2 More frequent monitoring may be required if clinically indicated.

3 **Recommended baseline testing for hepatitis B status includes HBsAg, anti-HBs, and anti-HBc**. If either HBsAg or anti-HBc is positive, obtain an HBV DNA viral load. If criteria for treatment of HBV are met, initiating antiviral therapy for HBV is recommended prior to or at the same time as HCV treatment. If criteria for treatment of chronic HBV infection are not met, monthly HBV DNA viral loads are recommended during treatment for HCV.

4 **More frequent monitoring of ALT is necessary in certain situations: 1) Regimens containing elbasvir/grazoprevir:** An ALT should be drawn at 4 weeks and again at 8 weeks, and as clinically indicated. For 16-week regimens, an ALT should also be drawn at 12 weeks; **2) Patients with compensated cirrhosis** who are treated with paritaprevir/ritonavir/ ombitasvir, with or without dasabuvir, require more frequent monitoring of ALT; **3) Increases in the ALT should prompt more frequent monitoring or early discontinuation.** Asymptomatic ALT increases of less than tenfold should be monitored approximately every 2 weeks. Early discontinuation of HCV treatment is recommended if ALT increases by tenfold—or if less than tenfold , but accompanied by *symptoms* such as weakness, anorexia, nausea, vomiting, or change in stool color, or *signs* including elevations in conjugated bilirubin, a kaline phosphatase, and INR, related to hepatic dysfunction

5 A CTP score is calculated only for cases with known or suspected cirrhosis.

6 For treatment regimens recommended in this document, the routine schedule of HCV RNA testing includes baseline testing, after 4 weeks on treatment, and 12 weeks after completion of therapy. BOP recommends pretreatment testing of HCV RNA if the most recent test was performed more than 1 year ago. If the quantitative HCV viral load is detectable after 4 weeks of treatment, it should be repeated 2 weeks later. An HCV RNA is no longer necessary at the end of treatment unless undetectable levels were not achieved during treatment. If HCV RNA is undetectable12 weeks after treatment, BOP recommends repeat testing 6 to 12 months after completion of treatment.

7 On- and post-treatment monitoring for pregnancy is recommended only for RBV-containing regimens. A pre-treatment pregnancy test is recommended for all regimens.

→ **RIBAVIRIN-CONTAINING REGIMENS: A pretreatment ECG is recommended for inmates with preexisting coronary heart disease. A CBC should be obtained two and four weeks after starting treatment, every four weeks while on treatment, and more frequently as clinically indicated.**

APPENDIX 4. MANAGEMENT OF HEMATOLOGIC CHANGES

Note: ***For patients prescribed a direct-acting antiviral (DAA) for HCV infection (e.g., sofosbuvir or simeprevir), if ribavirin must be discontinued due to hematologic changes, the DAA also may need to be discontinued. Consultation with an experienced clinician is recommended.***

HEMOGLOBIN (Hgb)

Value	*Peginterferon/Ribavirin Adjustment and Supportive Treatment*	
10–11 g/dL	☐ ***Peginterferon*** → No change. ☐ ***Ribavirin*** → ► If no or minimal symptoms, then no dose modification. ► If symptomatic, decrease ribavirin by 200 mg/day.	***Candidates for Erythropoietin:*** Rule out other causes of anemia. If anemia persists at 2 weeks after reducing ribavirin—and there is no hypertension—then consider erythropoietin, especially if the patient demonstrates a virologic response. Erythropoietin should be considered primarily for patients who are cirrhotic, post-transplant, HIV/HCV coinfected, or treated with a DAA. ***Dosage:*** Epoetin alfa 40,000 units subcutaneously weekly ***Goal:*** Hemoglobin 12 g/dL ***Note:*** If hemoglobin is <12 g/dL for more than 4 weeks at the reduced/adjusted dose, then discontinue ribavirin.
8.5–10 g/dL	☐ ***Peginterferon*** → ► ***Peginterferon alfa 2a*** (Pegasys) → No change. ► ***Peginterferon alfa 2b*** (PEG-Intron) → Reduce 50% (*see note below*). ☐ ***Ribavirin*** → ↓ to 600 mg daily (200 mg AM & 400 mg PM)	
<8.5 g/dL	☐ ***Peginterferon*** → ► ***Peginterferon alfa 2a*** (Pegasys) → No change. ► ***Peginterferon alfa 2b*** (PEG-Intron) → Discontinue until resolved. ☐ ***Ribavirin*** → Discontinue until resolved.	

ABSOLUTE NEUTROPHIL COUNT (ANC)

Value	*Peginterferon/Ribavirin Adjustment and Supportive Treatment*	
<750	☐ ***Peginterferon*** → ► ***Peginterferon alfa 2a*** (Pegasys) → Reduce dose to 135 microgram/week (75% dose). ► ***Peginterferon alfa 2b*** (PEG-Intron) → Reduce to a 50% dose *(see note below)* ☐ ***Ribavirin*** → No change.	
< 500	☐ ***Peginterferon*** & ***Ribavirin*** → Discontinue both until resolved.	***Granulocyte Colony Stimulating Factor (G-CSF):*** If the patient is responding to treatment and neutropenia persists despite reduced peginterferon dose, consider G-CSF (in consultation with an expert) for patients who are cirrhotic, post-transplant, HIV/HCV coinfected, or treated with a DAA. ***Dosage:*** Filgrastim 300 microgram subcutaneous daily or less frequently. ***Goal:*** ANC >1500

PLATELETS

Value	*Peginterferon/Ribavirin Adjustment and Supportive Treatment*
<50,000	☐ ***Peginterferon*** → ► ***Peginterferon alfa 2a*** (Pegasys) → Reduce dosage to 90 micrograms/week (50% dose) (*see note below*). ► ***Peginterferon alfa 2b*** (PEG-Intron) → Discontinue until resolved. ☐ ***Ribavirin*** → If on PEG-Intron, then discontinue ribavirin.
<30,000	☐ ***Peginterferon*** → Discontinue until resolved. ☐ ***Ribavirin*** → Discontinue until resolved.

Note: While the manufacturer of peginterferon recommends reducing dose to 50%, recent data suggest that lowering the dose to this extent may significantly reduce the likelihood of achieving an SVR. Some experts recommend a 25% dose reduction with close monitoring of hematologic parameters.

APPENDIX 5. RESOURCES—PREVENTION AND TREATMENT OF VIRAL HEPATITIS

HEALTH CARE PROFESSIONALS

- **American Association for the Study of Liver Diseases and Infectious Disease Society of America Hepatitis C Guidance**
  http://www.hcvguidelines.org
- **Centers for Disease Control and Prevention**
  National Center for Infectious Diseases—Hepatitis Branch
  http://www.cdc.gov/ncidod/diseases/hepatitis/
- **MELD Score Calculator**
  http://optn.transplant.hrsa.gov/converge/resources/MeldPeldCalculator.asp?index=98
- **National Institutes of Health**
  National Institute of Diabetes and Digestive and Kidney Diseases
  http://www.niddk.nih.gov
- **National Clinicians' Post-Exposure Prophylaxis PEPline: (888) 448-4911**
  http://www.nccc.ucsf.edu/
- **U.S. Department of Veterans Affairs National Hepatitis C Program**
  http://www.hepatitis.va.gov/

PATIENT EDUCATION

- **American Liver Foundation (ALF)**
  http://www.liverfoundation.org
- **Centers for Disease Control and Prevention (CDC)**
  http://www.cdc.gov/idu/hepatitis/index.htm
- **Hepatitis Foundation International (HFI)**
  http://www.hepfi.org
- **The National Digestive Diseases Information Clearinghouse (NDDIC)**
  http://www.digestive.niddk.nih.gov/ddiseases/pubs/hepc_ez/index.htm
- **U.S. Department of Veterans Affairs National Hepatitis C Program—For Veterans and the Public**
  http://www.hepatitis.va.gov/patient/index.asp

APPENDIX 6. HEPATITIS C TREATMENT ALGORITHM/NONFORMULARY REQUEST WORKSHEET

The BOP *Hepatitis C Treatment Algorithm/Nonformulary Request Worksheet* is available on the next page.

August 2018 **Hepatitis C Treatment Algorithm/Nonformulary Request Worksheet**

U.S. DEPARTMENT OF JUSTICE **FEDERAL BUREAU OF PRISONS**

Inmate Name:	**Projected Release Date:**
Register Number:	**Weight (lb.):** (within 90 days of request)
APRI Score: APRI Date: APRI = ([AST/ULN AST]/Plt) x 100	**HCV Genotype:** 1a 1b 2 3 4 5 6
CTP Score (if cirrhotic): Date: **POINTS (circle):** 1 2 3 **Albumin (g/dL):** >3.5 2.8-3.5 <2.8 **Bilirubin (mg/dL):** <2 2-3 >3 **INR:** <1.7 1.7-2.3 >2.3 **Encephalopathy:** none grade 1-2 grade 3-4 **Ascites:** none diuretic responsive diuretic refractory	**Liver Biopsy Result (amount of fibrosis):** Date Performed: ☐ Not Performed ☐ Portal ☐ Periportal ☐ Bridging ☐ Cirrhosis ☐ None **Note:** For regimens with elbasvir/grazoprevir in the treatment of HCV genotype 1a, an HCV NSSA virologic resistence test is required.

Prior Antiviral Treatment for HCV: ☐ No ☐ Yes If yes, answer the following:

Drug Names and Dosages:

Start Date: Stop Date: Reason stopped:

Prior Treatment Response ☐ SVR ☐ Relapser ☐ Partial Responder ☐ Null Responder

Requested Treatment Regimen (check all that apply):

☐ Daclatasvir ☐ Sofosbuvir ☐ Simeprevir ☐ Ledipasvir/sofosbuvir (Harvoni®)

☐ Paritapravir/ritonavir/ombitasvir/dasabuvir (Viekira XR™)

☐ Paritaprevir/ritonavir/ombitasvir (Technivie®)

☐ Elbasvir/grazoprevir (Zepatier®) ☐ Glecaprevir/pibrentasvir (Mavyret™)

☐ Sofosbuvir/velpatasvir (Epclusa®) ☐ Sofosbuvir/velpatasvir/voxilaprevir (Vosevi®)

☐ Ribavirin ☐ Other_____

Medical Clearance:

☐ Sentenced inmate with sufficient time remaining on sentence to complete a course of treatment prior to halfway house (RRC), home confinement, or GCT/Full Term release.

☐ No sanctions for drug or alcohol/intoxicant possession/use, or tattooing within previous 1 year.

☐ No documented non-adherence to prior therapy, failure to complete pretreatment evaluation process, or unwillingness to commit or consent to HCV treatment.

☐ No contraindications or drug interactions with requested treatment regimen

☐ No uncontrolled or unstable medical or mental health conditions.

☐ No current pregnancy

Health Services Staff Name / Signature / Date / Institution

Required Documentation – include copies of the following with this request:

☐ CBC, serum creatinine and eGFR, liver panel, INR (dated within 90 days of request)

☐ HCV RNA viral load (reported as IU/ml) and genotype (dated within 90 days of request)

☐ HIV Ab – if positive, include CD4 and HIV viral load (dated within 90 days of request) and current antiretroviral medication regimen

☐ Hepatitis B serology (sAb, sAg, and cAb)- if sAg reactive, include eAg, eAb, and HBV DNA viral load

☐ Liver biopsy report (if performed, but not required unless clinically indicated)

☐ If cirrhosis or APRI ≥ 2(defined by pathology or clinical findings), include abdominal US or CT

☐ Pregnancy test if woman with child-bearing potential (dated within 90 days of request)

PROCEDURE FOR SUBMITTING HCV TREATMENT REQUEST

- Generate a BEMR non-formulary request (NFR) for Hepatitis C Treatment Algorithm.
- Include all information and attach all required documentation from above.
- May scan and attach Hepatitis C Treatment Algorithm Nonformulary Request Worksheet to NFR.